

# TRAFFIC IMPACT ANALYSIS

For

## WOODSPRINGS HOTEL

Prepared By: Deanna Foriere

**Engineering Design & Construction, Inc.**

10250 SW Village Parkway, Suite 201

Port St. Lucie, FL 34987

Board of Professional Engineers Certificate of Authorization Number 9935

November 2020



11/4/2020  
Date

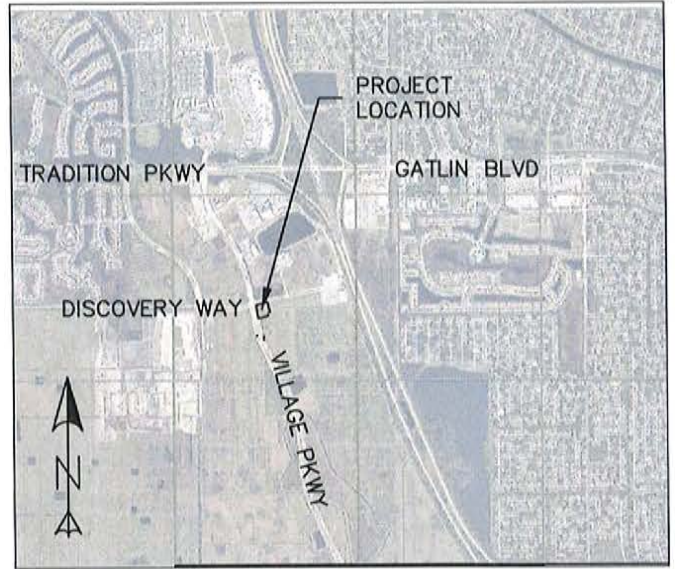
Jayson Harrison, P.E.  
82270  
10250 SW Village Parkway, Suite 201

### **Introduction:**

Engineering Design & Construction has completed a traffic statement and impact analysis for the proposed Woodspring Suites Hotel, located on the corner of SW Village Parkway and SW Discovery Way. Village Parkway is a four-lane divided arterial, with a signalized intersection at Discovery Way, a two-lane divided arterial. See the attached Location Map (Exhibit 1).

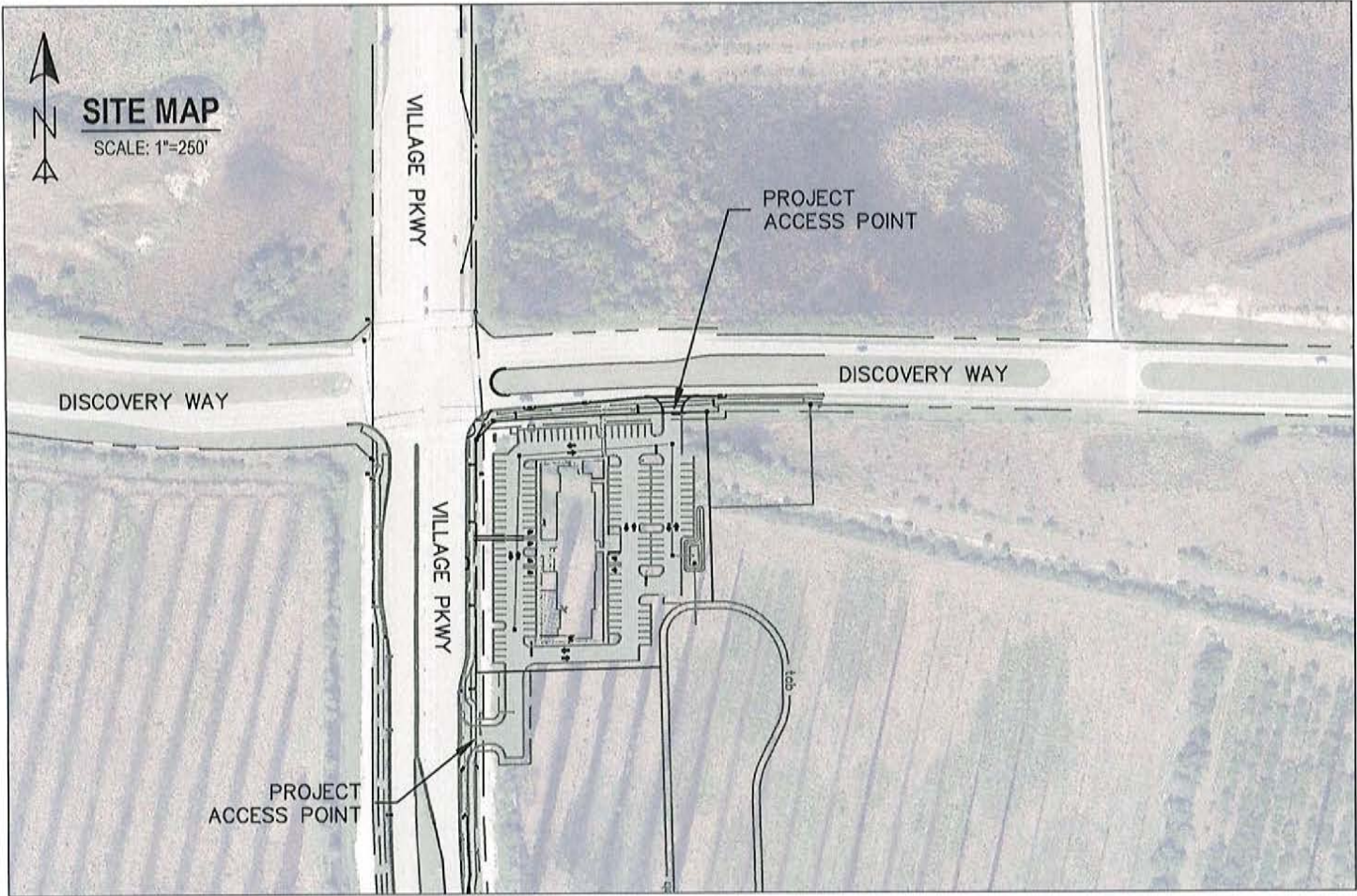
The purpose of this study is to determine the proposed project's impact on the surrounding traffic and roadway level of service. This analysis follows the guidelines set forth in the Standard Traffic Impact Studies (TIS) Methodology and Procedures created by St. Lucie TPO, along with the City of Port St. Lucie, Public Works Department Policy #19-01.

**LOCATION MAP**



**VICINITY MAP**

SCALE: 1"=5000'



**SITE MAP**  
SCALE: 1"=250'

20-272  
1 OF 1

F.P.E. CERTIFICATE OF AUTHORIZATION 8935  
L.S. CERTIFICATE OF AUTHORIZATION 6008

**WOODSPRINGS HOTEL**  
LOCATION MAP AND SITE MAP  
WITH AERIAL PHOTOGRAPH  
PORT ST. LUCIE FLORIDA

DATE	REVISION COMMENTS

10250 SW VILLAGE PARKWAY - SUITE 201  
PORT SAINT LUCIE, FL 34987  
772-462-2455 www.edc-inc.com

## **Project Description**

The project is located on the parcel 4315-505-0009-000-2 with a total area of 2.69 AC. The proposed project consists of a 4-story, 51,945 S.F. Hotel with 122 guest rooms. Please see Exhibit 2 for the proposed site plan.

## **Existing Condition**

The intersection of Village Pkwy and Discovery Way is a currently signalized intersection. Village Pkwy runs North and South as a 4-lane divided arterial, at the intersection Village Pkwy has signaled turning lanes for Discovery Way East and West. Existing traffic was collected from the St. Lucie TPO Traffic Counts and Level of Service Report Fall/Winter(2019/2020). Discovery Way was not listed on the report therefore a generalized volume was calculated using FDOT's 2020 Quality/Level of Service Handbook Tables, along with a traffic count conducted at both AM and PM Hrs. See attached references.



**Trip Generation:**

To properly estimate the trip generation the Institute of Traffic Engineers' (ITE) Report, Trip Generation (10<sup>th</sup> edition) was used to produce Daily Average, A.M Peak, and P.M. Peak. The proposed development is a Hotel with 51,945 GSF and 122 guest rooms, this results in the use of ITE Code 310(Hotel) and 122 units for calculations

<b>WOODSPRINGS SUITES: TRIP GENERATION</b>									
Institute of Transportation Engineers: Trip Generation, 10th Edition									
WEEKDAY: DAILY AVERAGE									
Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Suites Hotel	310	122	Rooms	$T=11.29(X) - 426.97$	50%	50%	475	475	950
WEEKDAY: A.M. PEAK HOUR TRIPS									
Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Suites Hotel	310	122	Rooms	$\ln(T)=0.84\ln(X) + 0.25$	54%	46%	39	33	73
WEEKDAY: P.M. PEAK HOUR TRIPS									
Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Suites Hotel	310	122	Rooms	$\ln(T)=0.93\ln(X) - 0.14$	58%	42%	44	32	76
SATURDAY: DAILY AVERAGE									
Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Suites Hotel	310	122	Rooms	$T=9.62(X) - 294.56$	50%	50%	440	440	879
SATURDAY: PEAK HOUR TRIPS									
Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Suites Hotel	310	122	Rooms	$T=0.69(X) + 4.32$	56%	44%	50	39	89
SUNDAY: DAILY AVERAGE									
Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Suites Hotel	310	122	Rooms	$T=8.56(X) - 538.12$	50%	50%	253	253	506
SUNDAY: PEAK HOUR TRIPS									
Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Suites Hotel	310	122	Rooms	$T=0.70(X) - 29.89$	46%	54%	26	30	56

**Internal Capture**

This project contains no internal capture

**Pass-by Trip Capture**

The pass-by trip capture rate is 0

**Radius of Impact**

For this analysis the radius of impact was determined by the Standardized Traffic Impact Studies (TIS) Methodology and Procedures Appendix B. The area is based on the New External Daily Trip Generation. The Proposed project generates a total of 950 new daily trips.

<b>New External Daily Trip Generation</b>	<b>Radius of Area of Influence</b>
0 - 200	Only segments directly accessed by the proposed development
201 - 500	0.5 miles
501 - 1,000	1.0 miles
1,001 - 5,000	2.0 miles
5,001 - 10,000	3.0 miles
10,001 - 20,000	4.0 miles
Over 20,000	5.0 miles

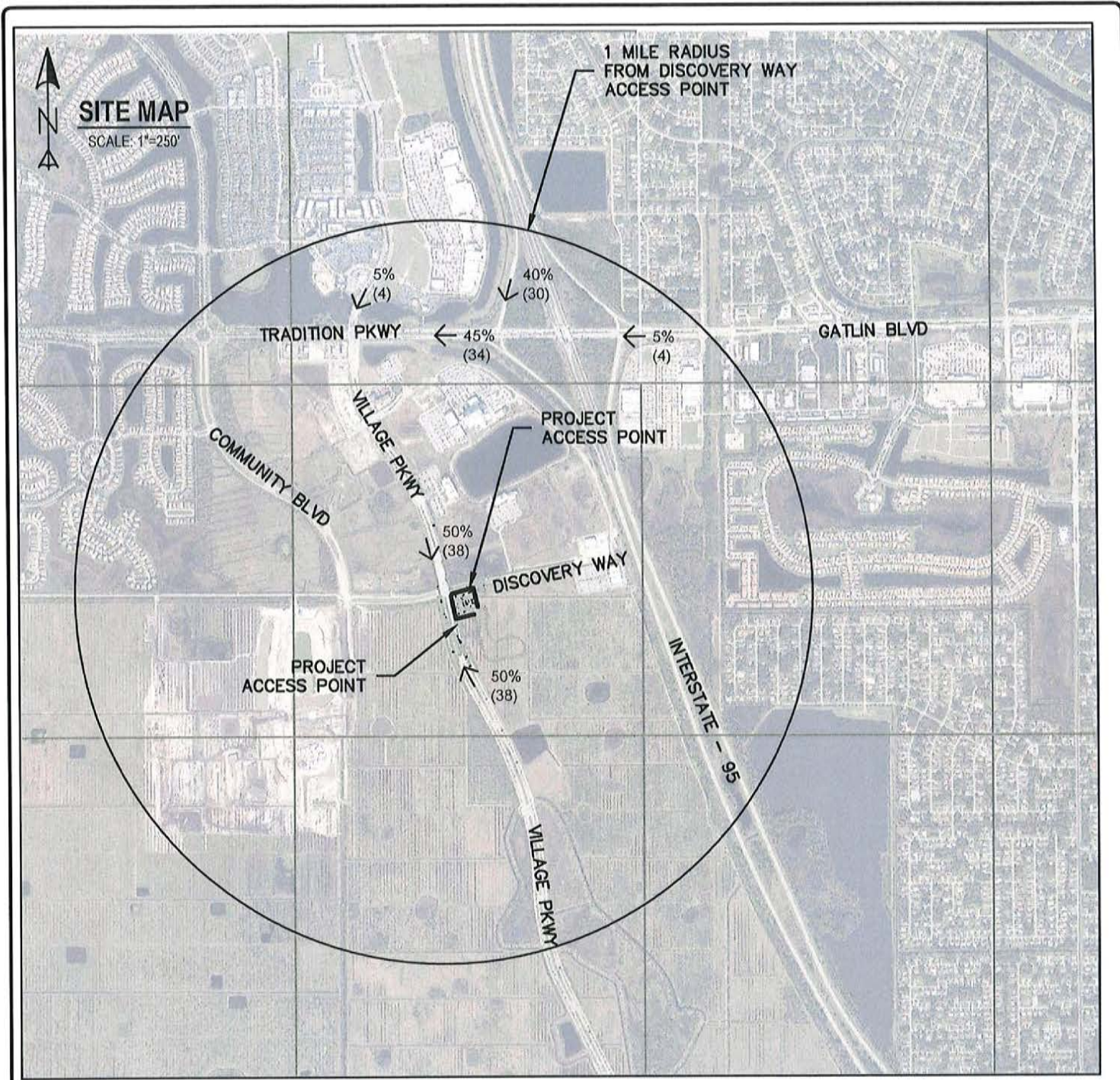
**Traffic Distribution**

Traffic Distribution and assignment was determined using engineering judgement, trip lengths, surrounding uses and review of the roadway network. The general distribution can be seen below. Detailed distribution map is attached.



North =50%  
South =50%

**Conclusion**

In conclusion the 51,945 S.F. hotel is located on the corner of Village Pkwy and Discovery Way, has a net change in traffic of 950 daily trips with 73 AM Peak Hour Trips, and 76 PM Peak Hour Trips. Analysis of the distribution of trips along all surrounding streets within the radius of interest, is attached. The PM Peak Hr trips were utilized in those calculations. Per section 156.057 (III)(58) the proposed development does not generation more than 1,000 new daily trips, which would not require a traffic impact study, and because the roads do not have an increase of 5% of the allowed capacity on any Major Road, EDC believes this development will have no negative impacts on surrounding roads.



PM PEAK HOUR TRIPS : 76  
 IN: 58%  
 OUT: 42%

<p>20-272</p>	 <p>ENGINEERS &amp; SURVEYORS ENVIRONMENTAL</p>	<p><b>WOODSPRINGS HOTEL</b></p> <p>LOCATION MAP AND SITE MAP WITH AERIAL PHOTOGRAPH</p>	<p>DATE</p> <p># OF SHEET COMMENTS</p>	 <p>ENGINEERS &amp; SURVEYORS ENVIRONMENTAL</p>
<p>1 OF 1</p>	<p>F.L.P.E. CERTIFICATE OF AUTHORIZATION 8031          L.S. CERTIFICATE OF AUTHORIZATION 8012</p>	<p>PORT ST. LUCIE FLORIDA</p>	<p>DATE</p> <p># OF SHEET COMMENTS</p>	<p>10250 SW VILLAGE PARKWAY - SUITE 201          PORT SAINT LUCIE, FL 34987          ☎ 772-462-2455 🌐 www.edc-inc.com</p>



Land Use	Daily Trips		AM Trips		PM Trips	
	IN	OUT	IN	OUT	IN	OUT
Existing	0	0	0	0	0	0
Proposed	475	475	39	33	44	32
Net Change in Trips	475	475	39	33	44	32
			TOTAL	TOTAL	TOTAL	TOTAL
			950	73	73	76

**Trip Distribution**

ROW Segment	From	To	LOS Service Capacity	Peak Hr Service Capacity	Peak Hr Project Volume	% project of LOS Capacity	Exist Peak Hr Peak Direction	Adopted LOS Currently Exceeded?	Total Peak Hr Volume	(5%) Impacts to LOS Exceeded?	Adopted LOS to be Exceeded
Becker Rd	I-95	Village Pkwy	C	3,170	38	1%	178	No	216	No	No
Village Pkwy	Becker Rd	Discovery Way	C	1,710	38	2%	797	No	835	No	No
Discovery Way*	Innovation Way	Village Pkwy	C	1,586	38	2%	28	No	66	No	No
Tradition Pkwy	I-95	Village Pkwy	D	3,170	34	1.1%	1,924	No	1958	No	No
Village Pkwy	Discovery Way	Tradition Pkwy	C	2,650	38	1.4%	797	No	835	No	No
Village Pkwy	Tradition Pkwy	Westcliffe Ln	D	1,710	4	0.2%	1,265	No	1269	No	No
Gatlin Blvd	I-95	Savage Blvd	C	3,170	4	0.1%	2,493	No	2497	No	No

\* No available data. FDOT Quality/Level of Service Handbook Table 4 & Traffic Count Utilized (See attached Reference)

TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's Urbanized Areas<sup>1</sup>

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>					
<b>Class I (40 mph or higher posted speed limit)</b>						<b>Core Urbanized</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	1,510	1,600	**	4	4,050	5,640	6,800	7,420	
4	Divided	*	3,420	3,580	**	6	5,960	8,310	10,220	11,150	
6	Divided	*	5,250	5,390	**	8	7,840	10,960	13,620	14,850	
8	Divided	*	7,090	7,210	**	10	9,800	13,510	17,040	18,580	
						12	11,600	16,350	20,930	23,200	
<b>Class II (35 mph or slower posted speed limit)</b>						<b>Urbanized</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	660	1,330	1,410	4	4,130	5,640	7,070	7,690	
4	Divided	*	1,310	2,920	3,040	6	6,200	8,450	10,510	11,530	
6	Divided	*	2,090	4,500	4,590	8	8,270	11,270	13,960	15,380	
8	Divided	*	2,880	6,060	6,130	10	10,350	14,110	17,310	19,220	
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent.) Non-State Signalized Roadways - 10%						<b>Freeway Adjustments</b> Auxiliary Lanes Present in Both Directions + 1,800 Ramp Metering + 5%					
<b>Median &amp; Turn Lane Adjustments</b>						<b>UNINTERRUPTED FLOW HIGHWAYS</b>					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		Lanes	Median	B	C	D	E
2	Divided	Yes	No	+5%		2	Undivided	1,050	1,620	2,180	2,930
2	Undivided	No	No	-20%		4	Divided	3,270	4,730	5,960	6,780
Multi	Undivided	Yes	No	-5%		6	Divided	4,910	7,090	8,950	10,180
Multi	Undivided	No	No	-25%		<b>Uninterrupted Flow Highway Adjustments</b>					
			Yes	+ 5%		Lanes	Median	Exclusive left lanes	Adjustment factors		
<b>1,510 x (1.05) = 1,586</b>						2	Divided	Yes	+5%		
<b>One-Way Facility Adjustment</b> Multiply the corresponding two-directional volumes in this table by 0.6						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
<b>BICYCLE MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						<sup>1</sup> Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
Paved Shoulder/Bicycle Lane Coverage						<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
		B	C	D	E	<sup>3</sup> Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
0-49%		*	260	680	1,770	* Cannot be achieved using table input value defaults.					
50-84%		190	600	1,770	>1,770	** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
85-100%		830	1,700	>1,770	**	<i>Source:</i> Florida Department of Transportation Systems Implementation Office <a href="https://www.fdot.gov/planning/systems/">https://www.fdot.gov/planning/systems/</a>					
<b>PEDESTRIAN MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage											
		B	C	D	E						
0-49%		*	*	250	850						
50-84%		*	150	780	1,420						
85-100%		340	960	1,560	>1,770						
<b>BUS MODE (Scheduled Fixed Route)<sup>3</sup></b> (Buses in peak hour in peak direction)											
Sidewalk Coverage											
		B	C	D	E						
0-84%		> 5	≥ 4	≥ 3	≥ 2						
85-100%		> 4	≥ 3	≥ 2	≥ 1						

**PM Peak Hour - Traffic Count(15 min intervals)**

Village Pkwy &amp; Discovery Way

**Village Pkwy (South Bound)**

Right - Discovery Way (West)		Left -Discovery Way (East)	
4:00-4:15	23	4:00-4:15	7
4:15-4:30	17	4:15-4:30	7
4:30-4:45	25	4:30-4:45	7
4:45-5:00	22	4:45-5:00	6
5:00-5:15	24	5:00-5:15	5
5:15-5:30	17	5:15-5:30	3
5:30-5:45	19	5:30-5:45	7
5:45-6:00	22	5:45-6:00	7
<b>Average</b>	<b>21</b>	<b>Average</b>	<b>6</b>

**Village Pkwy (North Bound)**

Left - Discovery Way (West)		Right -Discovery Way (East)	
4:00-4:15	12	4:00-4:15	2
4:15-4:30	4	4:15-4:30	1
4:30-4:45	9	4:30-4:45	0
4:45-5:00	10	4:45-5:00	1
5:00-5:15	8	5:00-5:15	1
5:15-5:30	10	5:15-5:30	0
5:30-5:45	11	5:30-5:45	3
5:45-6:00	13	5:45-6:00	1
<b>Average</b>	<b>10</b>	<b>Average</b>	<b>1</b>

**Discovery Way (East Bound)**

Right - Village Pkwy (South)		Left -Village Pkwy (North)	
4:00-4:15	10	4:00-4:15	20
4:15-4:30	12	4:15-4:30	22
4:30-4:45	12	4:30-4:45	25
4:45-5:00	17	4:45-5:00	22
5:00-5:15	19	5:00-5:15	28
5:15-5:30	15	5:15-5:30	35
5:30-5:45	13	5:30-5:45	27
5:45-6:00	15	5:45-6:00	12
<b>Average</b>	<b>14</b>	<b>Average</b>	<b>24</b>

**Discovery Way (West Bound)**

Left - Village Pkwy (South)		Right -Village Pkwy (North)	
4:00-4:15	2	4:00-4:15	18
4:15-4:30	2	4:15-4:30	12
4:30-4:45	4	4:30-4:45	17
4:45-5:00	4	4:45-5:00	18
5:00-5:15	2	5:00-5:15	47
5:15-5:30	8	5:15-5:30	14
5:30-5:45	13	5:30-5:45	30
5:45-6:00	1	5:45-6:00	17
<b>Average</b>	<b>5</b>	<b>Average</b>	<b>22</b>

Traffic Counts and Level of Service Report  
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir		PM Pk Hr Pk Dir			
						Volume	LOS	V/C	Volume	LOS	V/C
AVENUE Q	17TH ST to 13TH ST	701	3,937	2016	540	281	D	0.520	314	D	0.581
AVENUE O	13TH ST to US 1	685	1,867	2017	540	105	C	0.389	108	C	0.400
AVENUE C	10TH ST to 7TH ST	631	350	2017	540	20	C	0.074	21	C	0.078
BAYSHORE BLVD	MOUNTWELL ST to PORT ST LUCIE BLVD	621	6,000	2019	830	373	C	0.478	324	C	0.415
BAYSHORE BLVD	PORT ST LUCIE BLVD to THORNHILL DR	309	28,260	2018	2,100	1,335	C	0.664	1,297	C	0.645
BAYSHORE BLVD	THORNHILL DR to CROSSTOWN PKWY	948508	22,081	2017	2,100	1,019	C	0.534	1,019	C	0.534
BAYSHORE BLVD	CROSSTOWN PKWY to PRIMA VISTA BLVD	307	27,000	2019	2,100	1,394	C	0.694	1,356	C	0.675
BAYSHORE BLVD	PRIMA VISTA BLVD to FLORESTA DR	305	17,500	2019	920	829	C	0.953	858	C	0.986
BAYSHORE BLVD	FLORESTA DR to SELVITZ RD	622	13,000	2019	790	707	C	0.943	623	C	0.831
BAYSHORE BLVD	SELVITZ RD to 25TH ST	622	13,000	2019	750	707	D	0.943	623	D	0.831
BEACH AVE	OLEANDER AVE to RIO MAR DR	623	3,500	2017	540	247	C	0.915	211	C	0.781
BECKER RD	VILLAGE PKWY to I-95	624	2,500	2017	3,170	196	C	0.063	178	C	0.058
BECKER RD	I-95 to SAVONA BLVD	625	21,000	2019	2,000	1,809	C	0.947	1,616	C	0.846
BECKER RD	SAVONA BLVD to PORT ST LUCIE BLVD	626	18,000	2019	2,100	1,142	C	0.568	1,083	C	0.539
BECKER RD	ALBACORE ST to DARWIN BLVD	302	13,500	2019	1,500	863	C	0.603	842	C	0.589
BECKER RD	PORT ST LUCIE BLVD to ALBACORE ST	302	13,500	2019	2,100	863	C	0.429	842	C	0.419
BECKER RD	ATHENA DR to FLORIDA'S TURNPIKE	627	15,000	2019	1,500	1,320	C	0.923	1,244	C	0.870
BECKER RD	DARWIN BLVD to ATHENA DR	627	15,000	2019	2,000	1,320	C	0.691	1,244	C	0.651
BECKER RD	FLORIDA'S TURNPIKE to SOUTHBEND BLVD	628	20,000	2019	2,100	1,333	C	0.663	1,657	C	0.824
BECKER RD	SOUTHBEND BLVD to GILSON RD	629	15,000	2019	920	956	F	1.039	1,182	F	1.285
BELL AVE	25TH ST to SUNRISE BLVD	104	4,758	2019	790	313	C	0.803	326	C	0.836
BELL AVE	SUNRISE BLVD to OLEANDER AVE	102	3,854	2019	600	217	C	0.723	223	C	0.743
CASHMERE BLVD	PEACOCK BLVD to TORINO PKWY	676	10,159	2018	630	714	F	1.133	589	C	0.982
CALIFORNIA BLVD	CAMEO BLVD to DEL RIO BLVD	633	7,813	2018	750	503	D	0.671	429	D	0.572
CALIFORNIA BLVD	DEL RIO BLVD to SAVONA BLVD	634	14,000	2019	920	774	C	0.890	771	C	0.886

\* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT  
 \* Volumes shown were adjusted using FDOT Seasonal Factors  
 \* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)  
 \* Counts with an ID format of 6 digits have data extracted from FDOT count stations.

Traffic Counts and Level of Service Report  
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
EAST TORINO PKWY	TORINO PKWY to MIDWAY RD	237	14,500	2020	880	1,030	F	1.170	978	F	1.111
EASY ST	US 1 to BUCHANAN DR	106	8,029	2018	750	601	D	0.801	483	D	0.644
EASY ST	BUCHANAN DR to YUCCA DR	106	8,029	2018	540	601	F	1.036	483	D	0.894
EDWARDS RD	JENKINS RD to MCNEIL RD	174	11,500	2020	630	573	C	0.955	594	C	0.990
EDWARDS RD	MCNEIL RD to SELVITZ RD	174	11,500	2020	700	573	C	0.868	594	C	0.900
EDWARDS RD	SELVITZ RD to 25TH ST	110	15,000	2020	880	755	C	0.910	771	C	0.929
EDWARDS RD	25TH ST to SUNRISE BLVD	108	16,697	2019	1,630	877	D	0.538	867	D	0.532
EDWARDS RD	SUNRISE BLVD to OLEANDER AVE	502	15,207	2019	1,630	754	D	0.463	735	D	0.451
EDWARDS RD	OLEANDER AVE to US 1	173	9,581	2019	1,630	527	C	0.722	460	C	0.630
FARMER'S MARKET RD	OLEANDER AVE to US 1	112	1,876	2019	750	130	C	0.351	127	C	0.343
FLORESTA DR	OAKLYN ST to PORT ST LUCIE BLVD	317	13,000	2019	920	900	D	0.978	687	C	0.790
FLORESTA DR	THORNHILL DR to CROSSTOWN PKWY	315	12,500	2019	880	810	C	0.976	738	C	0.889
FLORESTA DR	PORT ST LUCIE BLVD to THORNHILL DR	315	12,500	2019	880	810	C	0.976	738	C	0.889
FLORESTA DR	CROSSTOWN PKWY to PRIMA VISTA BLVD	109	11,000	2019	920	671	C	0.771	576	C	0.662
FLORESTA DR	PRIMA VISTA BLVD to AIROSO BLVD	107	9,600	2019	920	559	C	0.643	601	C	0.691
FLORESTA DR	SELVITZ RD to BAYSHORE BLVD	313	4,467	2018	630	349	C	0.582	365	C	0.608
FLORESTA DR	AIROSO BLVD to SELVITZ RD	313	4,467	2018	880	349	C	0.420	365	C	0.440
FT PIERCE BLVD	INDRIO RD to EMERSON AVE	226	3,555	2019	540	267	C	0.989	273	D	0.506
GARDENIA AVE	OLEANDER AVE to US 1	666	2,817	2017	750	188	C	0.508	200	C	0.541
GATLIN BLVD	W OF I-95 to E OF I-95	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GATLIN BLVD	E OF I-95 to SAVAGE BLVD	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GATLIN BLVD	SAVAGE BLVD to ROSSER BLVD	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GATLIN BLVD	ROSSER BLVD to SAVONA BLVD	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GATLIN BLVD	SAVONA BLVD to PORT ST LUCIE BLVD	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GEORGIA AVE	25TH ST to OKEECHOBEE RD	667	4,700	2020	600	290	C	0.967	262	C	0.873

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**Traffic Counts and Level of Service Report**  
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
ST LUCIE WEST BLVD	CASHMERE BLVD to BAYSHORE BLVD	316	46,000	2019	3,170	2,446	C	0.792	2,308	C	0.747
SUNRISE BLVD	MIDWAY RD to BELL AVE	155	3,590	2016	540	249	C	0.922	233	C	0.863
SUNRISE BLVD	BELL AVE to EDWARDS RD	153	3,814	2016	750	253	C	0.684	286	C	0.773
SUNRISE BLVD	EDWARDS RD to CORTEZ BLVD	511	7,300	2020	600	647	F	1.011	515	D	0.858
SUNRISE BLVD	CORTEZ BLVD to VIRGINIA AVE	511	7,300	2020	750	647	D	0.863	515	D	0.687
SUNRISE BLVD	VIRGINIA AVE to OLEANDER AVE	509	5,300	2020	750	417	D	0.556	411	D	0.548
SUNRISE BLVD	OLEANDER AVE to 7TH ST	708	3,900	2017	1,540	243	C	0.352	282	C	0.409
SUNRISE BLVD	7TH ST to US 1	708	3,900	2017	1,710	243	C	0.316	282	C	0.366
TIFFANY AVE	US 1 to HILLMOOR DR	322	15,000	2019	2,100	855	C	0.425	862	C	0.429
TIFFANY AVE	HILLMOOR DR to VILLAGE GREEN DR	322	15,000	2019	2,100	855	C	0.425	862	C	0.429
TIFFANY AVE	VILLAGE GREEN DR to LENNARD RD	320	4,666	2017	2,100	242	C	0.120	261	C	0.130
TORINO PKWY	CASHMERE BLVD to CALIFORNIA BLVD	709	7,800	2018	630	404	C	0.673	443	C	0.738
TORINO PKWY	CALIFORNIA BLVD to EAST TORINO PKWY	238	4,314	2018	630	255	C	0.425	223	C	0.372
TRADITION PKWY	COMMUNITY BLVD to VILLAGE PKWY	711	8,367	2018	1,710	996	D	0.582	1,144	D	0.669
TRADITION PKWY	VILLAGE PKWY to W OF I-95	712	36,500	2019	3,170	2,021	C	0.654	1,924	C	0.623
TULIP BLVD	DARWIN BLVD to PORT ST LUCIE BLVD	713	8,200	2019	790	524	D	0.663	456	D	0.577
TULIP BLVD	PORT ST LUCIE BLVD to PAAR DR	714	9,133	2018	790	639	D	0.809	493	D	0.624
TULIP BLVD	PAAR DR to DARWIN BLVD	714	9,133	2018	790	639	D	0.809	493	D	0.624
TURNPIKE FEEDER RD	TURNPIKE FEEDER RD SB RAMP to US 1	940078	4,989	2015	660	653	C	0.989	653	C	0.989
TURNPIKE FEEDER RD	INDIAN PINES BLVD to TURNPIKE FEEDER RD SB R...	940269	10,253	2017	870	676	C	0.777	620	C	0.713
TURNPIKE FEEDER RD	INDRIO RD to INDIAN PINES BLVD	940745	12,876	2017	870	696	C	0.800	732	C	0.841
US 1	MARTIN C.L. to LENNARD RD	945071	41,817	2017	4,240	1,904	C	0.457	2,239	C	0.537
US 1	LENNARD RD to PORT ST LUCIE BLVD	945071	41,817	2017	4,040	1,904	C	0.480	2,239	C	0.564
US 1	PORT ST LUCIE BLVD to JENNINGS RD	945070	31,458	2017	3,020	1,510	C	0.514	1,603	C	0.545
US 1	JENNINGS RD to TIFFANY AVE	945070	31,458	2017	3,020	1,510	C	0.514	1,603	C	0.545

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**Traffic Counts and Level of Service Report**  
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
US 1	AVENUE H to OLD DIXIE HWY	715	33,500	2020	2,000	1,766	C	0.925	1,742	C	0.912
US 1	OLD DIXIE HWY to AVENUE O	940123	22,051	2017	2,000	1,530	C	0.801	1,196	C	0.626
US 1	AVENUE O to SR A1A NORTH	940123	22,051	2017	2,100	1,530	C	0.761	1,196	C	0.595
US 1	SR A1A NORTH to JUANITA AVE	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	JUANITA AVE to ST LUCIE BLVD	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	ST LUCIE BLVD to 25TH ST	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	25TH ST to INDRIO RD	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	INDRIO RD to TURNPIKE FEEDER RD	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
US 1	TURNPIKE FEEDER RD to INDIAN RIVER C.L.	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
VETERANS MEMORIAL PKWY	PORT ST LUCIE BLVD to LYNNGATE DR	329	14,500	2019	2,100	779	C	0.368	817	C	0.406
VETERANS MEMORIAL PKWY	LYNNGATE DR to US 1	327	14,911	2017	2,100	756	C	0.376	804	C	0.400
VILLAGE GREEN DR	US 1 to WALTON RD	716	9,600	2017	2,100	619	C	0.308	575	C	0.286
VILLAGE GREEN DR	WALTON RD to TIFFANY AVE	717	4,633	2017	920	249	C	0.286	235	C	0.270
VIRGINIA AVE	35TH ST to 25TH ST	940032	21,557	2017	3,020	1,111	C	0.378	1,083	C	0.368
VIRGINIA AVE	OKEECHOBEE RD to HARTMAN RD	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	HARTMAN RD to 35TH ST	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	25TH ST to 13TH ST	940033	20,913	2017	3,020	1,093	C	0.372	1,164	C	0.396
VIRGINIA AVE	13TH ST to 11TH ST	940794	22,873	2017	3,020	1,101	C	0.374	1,101	C	0.374
VIRGINIA AVE	11TH ST to SUNRISE BLVD	940794	22,873	2017	3,170	1,101	C	0.356	1,101	C	0.356
VIRGINIA AVE	SUNRISE BLVD to OLEANDER AVE	940792	19,519	2017	3,020	1,063	C	0.362	992	C	0.337
VIRGINIA AVE	OLEANDER AVE to COLONIAL RD	940034	18,483	2017	3,170	1,043	C	0.338	1,020	C	0.330
VIRGINIA AVE	COLONIAL RD to US 1	940034	18,483	2017	3,020	1,043	C	0.355	1,020	C	0.347
VILLAGE PKWY	DISCOVERY WAY to TRADITION PKWY	718	14,000	2019	2,650	732	C	0.595	797	C	0.648
VILLAGE PKWY	BECKER RD to DISCOVERY WAY	718	14,000	2019	1,710	732	C	0.951	797	D	0.466
VILLAGE PKWY	TRADITION PKWY to WESTCLIFFE LN	719	23,000	2019	1,710	1,208	D	0.706	1,265	D	0.740

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## 1. PURPOSE AND APPLICABILITY

The purpose is to provide a generally uniform methodology for identifying potential traffic impacts of new development and redevelopment on the transportation system and developing mitigation strategies to offset those impacts. However, the need to perform a Traffic Impact Study (TIS) will be determined in accordance with the applicable local government requirements and provisions.

The TIS is to be signed and sealed by a registered professional engineer licensed to practice in Florida.

Any reference to the "Local Government" in these guidelines shall mean the City of Ft. Pierce, City of Port St. Lucie, St. Lucie County, their consultants, sub-consultants, contractors, or employees, as applicable. Any reference to the "Applicant" in these guidelines shall mean the person or party making application to the Local Government, to include the Applicant's consultants, sub-consultants, and contractors.

Unless otherwise agreed to in an approved Methodology Statement, the procedures of this unified methodology document will be followed.

## 2. METHODOLOGY STATEMENT

Prior to conducting any study, a Methodology Statement shall be prepared by the Applicant and submitted to the Local Government for review and approval. The purpose of the Methodology Statement is to establish agreed upon methodologies and assumptions prior to the start of the study. The methodology shall address the following minimum elements:

- Description of land uses, site location, build-out schedule, and phasing
- Preliminary site plan
- Trip Generation
- Internal Capture
- Background Traffic Growth Procedure
- Distribution and Assignment
- Committed Network

It shall be the Applicant's responsibility to ensure that a traffic study is not prepared or submitted without an approved Methodology Statement signed by the Local Government.

## 3. IMPACTED ROADWAYS/INTERSECTIONS

At a minimum, the following impacted roadway segments and intersections shall be analyzed in the TIS:

- a. Any Road Segment to which development traffic makes its first connection to the Major Road Network, provided the development traffic consumes one percent or more of the existing or committed two-way peak-hour service capacity,



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- b. Major Road Segment on which the two-way peak-hour project traffic consumes 5 (five) percent or more of the existing or committed two-way peak-hour service capacity,
  - c. Site driveway connections to public roads. In addition, if the development has no direct connection to the Major Road Network, the intersections of the local/non-major roads (that provides access to the development) with the Major Road Network shall be analyzed, and
  - d. Major Intersections that are part of the impacted roadways.

To determine whether peak-hour development traffic consumes one percent or five percent or more of the existing service capacity of a road, the generalized roadway service volumes from the latest version of the Generalized Service Volumes tables of the Florida Department of Transportation (FDOT) shall be used. Roadway functional classification shall be based on the St. Lucie TPO's Federal Functional Classification Map and, for roads that are not contained on the map, it shall be based on the Local Government's Comprehensive Plan.

An alternative study network identification methodology can be followed by the Applicant; this methodology is described in Appendix B. Agreement on the use of the alternative study network methodology shall be reached during the methodology phase and its use acceptance is at the Local Government's discretion.

#### 4. ANALYSIS SCENARIOS

The Applicant shall be required to provide an analysis of the following scenarios:

- e. **Existing scenario** is defined as the analysis of existing traffic on the Existing Network.
- f. **Background scenario** is defined as the analysis of existing traffic plus background traffic on the committed network.
- g. **Background scenario with mitigation** is defined as the analysis of existing traffic plus background traffic on the committed network with the inclusion of any other improvements that are required to restore a facility to its adopted level of service standard.
- h. **Future scenario** is defined as analysis of existing traffic, plus background traffic, plus project traffic on the committed network.
- i. **Future Scenario with mitigation** is defined as analysis of existing traffic, plus background traffic, plus project traffic on the committed network with the inclusion of any other improvements (if needed) that are required to restore a facility to its adopted level of service standard.

A detailed definition of the analysis scenarios is included in Appendix A.